

**Liggett Vector's QUEST – No Nicotine + Reduced-Risk Attributes?  
Will Quest Have Low TSNA, Low PAH, etc.?**

***Business Wire [Press Release] (03/11/02) "Vector Group Announces Name of Nicotine-Free Cigarette and Creation of New Tobacco Sales and Marketing Arm"***

"Quest cigarettes will be sold in Lights and Menthol Lights variants, in both box and soft packs, and will be supported by a \$40 million advertising and marketing campaign.

Quest cigarettes utilize a proprietary process that enables the production of a tobacco cigarette that is nicotine-free and tastes and smokes like a conventional cigarette.

**Because they are nicotine-free, Quest cigarettes also contain a greatly reduced level of the most potent tobacco specific nitrosamine, known as NNK, believed to be one of the leading contributors of lung cancer."**

"We are equally excited about the progress of our nicotine-free cigarette Quest and look forward to a strong launch in the third quarter," said LeBow. "We had a very successful harvest of the Quest nicotine-free tobacco, are in the final stages of product development and expect to begin production at our new Timberlake, North Carolina facility shortly. The third quarter launch of Quest will allow for successful integration of our seasoned, growing sales force, as well as provide them with time to adequately prepare for the Quest products."

LeBow added, "As a nicotine-free cigarette that smokes and tastes just like a regular cigarette, Quest will be unlike any other product on the market. Quest will be priced as a premium cigarette and, we believe, offer adult smokers a new smoking alternative."

**From Transcript – Vector Group Phone Conference held for investors and posted for listing on vcall.com website (12/11/01). Conference focuses on Vector's mission as it relates to Omni carcinogen date and impact of reduced carcinogen cigarette on public health – followed by open Q&A. Present for Vector: Howard Lorber, Pres./COO Vector Group; Dr. Robert Bereman, VP-Chemical Research, Vector Tobacco; Dr. Anthony Albino, VP-Public Health Affairs, Vector Tobacco.**

Question from Bruce Farrell, *North Carolina News* (following first question asking about research on nicotine "or other addictive contents to cigarettes": "So, this new product that you're developing [referring to nic-free version] would also have the lower carcinogen components that are in Omni?"

Answer by Lorber: "We haven't decided for sure. We believe that at some point, all our products will have it. But we're not prepared to say when that'll be, but sometime in the future that will happen. **But the virtually nicotine-free product will stand by itself as its own product and that should be out the beginning of next year. By the way, by virtue of its being basically nicotine-free,**

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it does lower the tobacco specific nitrosamines that Dr. Bereman spoke about – the nicotine or the TSNAs are a by-product of the nicotine. So by having virtually no nicotine, you will have very low TSNA levels.”

***News & Observer (12/04/02) “Sales Begin for Reduced-Carcinogen Cigarette”***

“Vector Tobacco says it uses a chemical treatment that reduces three types of carcinogens in smoke coming from Omni cigarettes by 15% to 60%.”

“A nicotine-free cigarette will be introduced next year **using the treatment** plus a new type of tobacco genetically engineered to contain virtually no tobacco.”

***Daily Business Review (10/19/02) “LeBow Unbowed”***

**[INTERVIEW WITH LE BOW]:** “...In a second step, Vector is planning to launch Omni Nicotine Free [NOTE: name changed to Quest], a cigarette made of a genetically modified tobacco, early next year. **Eventually, Omni Nicotine Free will include the palladium process.**” [See full article]

***Environmental News Network (07/30/02) “Genetically Modified Tobacco Plants Yield Nicotine-Free Cigarettes”***

[Interview with Vector spokesman Paul Caminiti]: “ And early next year, Vector plans to introduce the first genetically modified (GM) tobacco that the company says produces no nicotine. **Omni Nicotine Free will also have reduced carcinogens.**”

### **Peripherally Relevant and of Interest**

***Synopsis of Highlights of Vector Group Conference Call (05/16/02):***

“Box packings of Omni are to be introduced mid-August when new machinery comes online.”

“Vector awaiting results of biological tests being performed at Duke Univ. as to just how much ‘safer and/or less carcinogenic’ Omni is vs. major brands. ... Vector ‘will aggressively market findings, which are “quite positive as of today” ... “Omni ‘has measured up nicely to Advance”’

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**Wall Street Journal (03/11/02) "Vector Reorganizes Sales Force to Promote Lower-Risk Smokes"**

"Vector executives have said they intend eventually to seek approval from the Food and Drug Administration to market the cigarettes [Quest] explicitly as a smoking-cessation tool."

**Associated Press (02/16/02) "Government to Approve New Cigarettes"**

"The Agriculture Department tests found small amounts of nicotine in the Vector tobacco of about 400 to 1,000 parts per million. Conventional tobacco has 20,000 to 30,000 parts per million."

"The Vector tobacco is more susceptible to insect damage because of the less nicotine, which serves as a pesticide in conventional plants, said Jim White, a scientist for the department's Animal and Plant Health Inspection Service."

**Reuters (02/12/02) "Vector Seeks USDA Action on Bio-Tobacco"**

"...The new product is designed to go a **step beyond** a cigarette called Omni that Vector introduced last November which uses tiny amounts of the rare metal palladium to act as a kind of catalytic converter in removing harmful ingredients from tobacco."

[NOTE: Vector stated elsewhere that it had invented a palladium substitute due to the metal's rarity and high cost.]

**Reuters (01/16/02) "Vector's LeBow Hopes New Brands Spur Smoking Drop"**

"Vector is testing its nicotine-free cigarette along with a nicotine patch in a possible sign of a joint marketing agreement in the future. That cigarette could be marketed as a smoking cessation device in a few years, depending on those results," LeBow said."

"Vector is also working on trimming the nitric oxide levels in Omni, Le Bow said. 'The company **admits that a process used in the production of Omni increases the level of nitric oxide, which has been reported to have a toxic effect on cells.**' LeBow said Vector plans to increase spending on research as it tries to improve its products."

**Raleigh News & Observer (12/28/01) "Health Groups, Tobacco Firms Weigh In On New Cigarettes"**

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[Quoting Howard Lorber, President/COO of Vector Group]: "Lorber said **Vector Group is even willing to change existing brands made by Liggett Group** – a related company and the maker of small sellers such as Eve and several discount cigarettes – **with any new technology that Vector Tobacco develops to reduce cigarette toxins.**"

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**"Genetically Modified Tobacco Plants Yield Nicotine-Free Cigarettes"**  
**Environmental News Network (07/30/01)**

For a smoker who enjoys cigarettes, the downside has always been the nicotine and carcinogens. Coming soon to a store near you, a cigarette that may offer neither.

Beginning this fall, Vector Tobacco of Durham, North Carolina, plans to market Omni, a reduced carcinogen cigarette. Vector spokesman, Paul Caminiti, says the company has developed a process to treat tobacco that significantly reduces nitrosamines and polycyclic aromatic hydrocarbons (PAHs), considered to be the major cause of cancer from cigarettes.

And early next year, Vector plans to introduce the first genetically modified (GM) tobacco that the company says produces no nicotine. Omni Nicotine Free will also have reduced carcinogens.

"We think there is a potentially a very big market for these," says Caminiti. "The nicotine free may not appeal to younger people, but it may appeal to the older smoker who wants to get on the road to quit smoking."

Focus group testing has shown that smokers liked the taste of the tobacco and found they were smoking fewer cigarettes. "They felt they were more in control of their smoking," says Caminiti.

The genetically modified tobacco plant was developed by Vector with the help of Dr. Mark Conkling, former North Carolina State molecular biologist and researcher, who now works for Vector.

Beginning in the mid-1990s, Dr. Conkling identified the gene that produces nicotine in the tobacco plant's roots. He succeeded in shutting down the nicotine gene and blocking formation of the nicotine, the company says, without effecting the viability of the plant or the taste of the cigarette.

Genetically modified tobacco makes for strange bedfellows. In Pennsylvania, Amish farmers are growing it this summer. Farmers in Illinois, Mississippi, and Louisiana are also growing the new crop this summer.

However, the premier tobacco growing state, North Carolina, has so far shunned genetically modified tobacco. "A lot of companies like Philip Morris are rejecting buying genetically modified tobacco, afraid if it gets into the chain with other tobacco, not genetically modified, it could ruin the tobacco industry, what's left of it now," says Charlie Zink of the Farm Service Agency office in Madison County, North Carolina.

A plant in Roxboro, North Carolina, is being refurbished to produce the "Omni Nicotine Free" brand. Vector chose separate production facilities to segregate the no-nic. tobacco from the traditional variety.

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**The U.S. Department of Agriculture has set guidelines for growing genetically modified tobacco that require a buffer zone of more than 1,000 feet between the genetically modified variety and traditional tobacco. Flowers must be removed from the GM tobacco to avoid cross-pollination in the field with non-GM tobacco.**

Vector is finding it easier to grow tobacco than to develop a cure for tobacco addiction. The company intends to eventually submit to the U.S. Food and Drug Administration (FDA) for approval, the Omni Nicotine Free brand as what the company is calling a "market cessation device."

"A new cigarette doesn't need to go through the FDA, but a nicotine patch does," says Caminiti.

Vector is part of Vector Group, a publicly traded company that also owns the Liggett Group, which is the smallest of the five major tobacco companies. With two percent of the U.S. market, Liggett sells mostly discount cigarettes such as Pyramid, and Tourney. Eve is the only branded cigarette Liggett sells.

Does the move to a no-nicotine tobacco spell suicide for the company? The Vector spokesman says no, in fact, Vector president, Bennett LeBow is morally driven to do the right thing. "If tobacco companies are telling the truth about not marketing to kids, the industry will be out of business soon anyway," says Caminiti.